

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking to Create a
Consistent Regulatory Framework for the
Guidance, Planning and Evaluation of
Integrated Distributed Energy Resources.

Rulemaking 14-10-003
(Filed October 2, 2014)

**OPENING COMMENTS OF
THE SOLAR ENERGY INDUSTRIES ASSOCIATION
ON PROPOSED DECISION ADOPTING CHANGES TO
THE AVOIDED COST CALCULATOR**

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Pursuant to Rule 14.3 of the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”), the Solar Industries Association (“SEIA”) comments on the *Proposed Decision Adopting Changes to the Avoided Cost Calculator* which was issued in in the above captioned proceeding on March 30, 2022 (“Proposed Decision” or “PD”).

I. INTRODUCTION

The Avoided Cost Calculator (“ACC”) plays a pivotal part in the Commission’s evaluation of the cost effectiveness of distributed energy resources (“DERs”). Even more important, the Commission has proposed that the ACC will be used directly to set the hourly compensation for the power that net energy metering (“NEM”) customers export to the grid.¹ It is thus imperative that the Commission ensure the ACC accurately reflects the value of DERs. Undervaluing DERs would have an adverse impact on California’s efforts to expand its renewable generation capacity, an expansion that is necessary to reduce greenhouse gas (“GHG”) emissions in conformance with SB 100’s clean energy goals for 2045 as well as the state’s intermediate emission reduction targets for 2030.

¹ See *Proposed Decision Revising Net Energy Metering Tariffs and Subtariffs*, R.20-08-020 (December 13, 2021).

In this regard, SEIA appreciates the efforts made in the Proposed Decision to enhance the transparency and efficacy of the updates to the ACC and to afford parties additional due process. SEIA trusts that such process changes will lead to a more accurate product. SEIA also appreciates the Proposed Decision's acknowledgement that further analysis is needed on how the ACC values the ability of DERs to avoid methane leakage, to include leakage from gas produced out-of-state but imported into California.² SEIA believes that it is necessary to included leakage from out of state gas to accurately capture the benefit of reduced methane leakage that is attributable to the use of DERs. Finally, SEIA appreciates the Proposed Decision's recognition of the value of SEIA's proposal to revise the ACC to include sensitivity cases showing a range of values for keys inputs for the natural gas forecast, the cap-and-trade allowance forecast, and the Greenhouse Gas Adder, and its determination to explore such sensitivities in a successor proceeding.³

That said, there are elements of the Proposed Decision which are erroneous and, if adopted, would result in undervaluing DERs. These errors in the PD result from the use of outdated data, reliance on inaccurate party arguments, and/or rendering a determination based on insufficient record evidence. To remedy these errors the Proposed Decision must be revised to (1) set a marginal transmission capacity cost for Southern California Edison Company of \$54.93 per kW-year; (2) retain the ACC's current "blended" forecast of natural gas commodity costs that uses current natural gas forward prices in the forecast's initial years and then transitions to the use of the long-term forecast from the California Energy Commission's ("CEC") Integrated Energy Policy Report ("IEPR"); (3) use the CEC's most recently-approved IEPR gas forecast

² Proposed Decision, p. 47.

³ *Id.*, p. 50.

(the September 2021 forecast); and (4) eliminate the application of the greenhouse gas (“GHG”) rebalancing adjustment to solar and storage.

In addition to these necessary changes to remedy errors in the PD, SEIA submits that the PD should be clarified on two points to ensure that the apparent intent of the PD is reflected in the language of the decision. Namely, the PD should clarify that (1) the recommended changes to the resolution phase of each ACC update will commence with the resolution addressing the 2022 ACC (i.e., the one immediately following the adoption of this Proposed Decision), and (2) that the avoided secondary distribution cost will be allocated based on peak diversified load.

II. THE PROPOSED DECISION MUST BE MODIFIED TO CORRECT ERRORS

A. Avoided Transmission Costs

Decision 20-04-010 established a protocol for determining the IOUs’ avoided transmission costs for use in the ACC – i.e., first use marginal transmission costs from Phase 2 of their respective General Rate Cases (“GRC”) (based on an established hierarchy of data), where available, or calculate marginal/avoided transmission costs from representative investment and load data if GRC data is not available. Based on this protocol, SEIA proposed an avoided transmission capacity cost of \$52.45 per kW-year for PG&E as that value had recently been approved by the Commission in PG&E’s last GRC.⁴ Similarly, SEIA proposed an avoided transmission capacity cost for SCE of \$54.93 per kW-year based on data contained in SCE’s most recently filed GRC Phase 2 application (A. 20-10-012).⁵ While the Proposed Decision adopts the PG&E marginal transmission capacity cost advanced by SEIA,⁶ it rejects the one

⁴ See D. 21-11-016, p. 68.

⁵ See A. 20-10-012, at Exhibit SCE-02, Appendix F “Transmission Cost Causation Study”.

⁶ Proposed Decision, p. 74.

proposed for SCE, citing SCE's objections to its use as basis for that determination.⁷ SCE's objections, however, are unfounded.

SCE claims that it is inappropriate to use the marginal transmission capacity costs from its last GRC as those costs do not fall within the data hierarchy of GRC values established in D. 20-04-010. Specifically, SCE argues that to fall within that data hierarchy, the marginal costs must have been approved or, at minimum proposed, for rate design or revenue allocation purposes. It contends that the marginal transmission capacity costs that it included in its latest GRC application was for neither purpose.⁸

SEIA does not contest that the data hierarchy of GRC values established in D. 20-04-010 requires that the value have been derived for rate design or revenue allocation purposes. But SCE's marginal transmission capacity cost in its latest GRC was used precisely and explicitly for rate design purposes. Specifically, the cost was derived in a Transmission Cost Causation Study that the Commission directed SCE to undertake and to submit as part of its latest GRC filing.⁹ The stated purpose of the study was to support changes to SCE's transmission *rate design* at the Federal Energy Regulatory Commission. Specifically, the Commission stated as follows:

We accept the proposal to use a proxy allocation of 30 percent of transmission costs allocated to volumetric rates and 70 percent allocated to demand charges pending FERC approval. The proxy transmission rates may not take effect until SCE receives FERC approval for its proposed 70/30 split. *SCE should also take the appropriate steps of completing a transmission cost causation study in its GRC phase 2 or Rate Design Window and then filing this request with the FERC before applying this transmission rate design on a more permanent basis.*¹⁰

⁷ *Id.*

⁸ *Joint Reply Brief of Southern California Edison Company, Pacific Gas and Electric Company and San Diego Gas & Electric Company on the Integrated Distributed Energy Resources 2022 Update Avoided Cost Calculator Staff Proposal*, R. 14-10-003 (January 5, 2022) p. 18.

⁹ *See* Decision 18-05-040, p. 114.

¹⁰ *Id.* (emphasis added).

The marginal transmission capacity costs determined in the Transmission Cost Causation Study submitted by SCE in A. 20-10-012 are for rate design purposes.¹¹ As such they are appropriate for use in the ACC.

B. Natural Gas Forecasts and Transportation Rates

The PD errs in its determination to change to the use of the CEC IEPR natural gas forecast for all years and all purposes in the ACC.¹² The PD justifies this change by asserting that it is necessary “to be consistent with IRP modeling but, more importantly, to ensure that distributed energy resources are treated evenly with supply side resources.”¹³ There are two significant issues with this aspect of the PD which result in significantly underestimating the value of DER resources that displace natural gas use in power plants.

The first issue is that recent IRP modeling used a 2020 IEPR gas forecast prepared in early 2020 (possibly even pre-covid) and released in June 2020.¹⁴ The IRP has continued to use this outdated IEPR gas forecast even though the CEC staff released an updated IEPR gas forecast in September 2021, and this new forecast has been approved by the CEC as part of the 2021 IEPR.¹⁵ The September 2021 IEPR gas forecast included an important improvement that SEIA

¹¹ While admittedly the marginal transmission capacity costs submitted by SCE in A. 20-10-012 were for rate design associated with FERC regulated rates, D.20-04-010 does not limit the purposes of these costs to Commission regulated rates. Indeed, as FERC is the entity which regulates transmission rates, marginal transmission capacity costs would of necessity be related to FERC rate design.

¹² Proposed Decision, pp. 75-78.

¹³ *Id.*, p. 77.

¹⁴ We have verified from the IRP models that the 2020 IEPR gas forecast was used for both the RESOLVE/SERVM modeling for the 2021 ACC and for the recent Preferred System Portfolio (PSP) approved by the CPUC in D. 22-02-004.

¹⁵ See the CEC’s 2021 IEPR, at pp. 133-138 for a discussion on the 2021 IEPR gas forecast. The adopted 2021 IEPR can be found at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=242233>. The details of the 2021 IEPR gas forecast released in September 2021 are at <https://www.energy.ca.gov/programs-and-topics/topics/energy-assessment/natural-gas-burner-tip-prices-california-and-western>.

recommended in comments to the CEC and also on the record of this case¹⁶ – future gas transportation rates in California are escalated at about 5% real per year instead of the 0% per year real increases (i.e. just inflation) used previously. The PD rejects SEIA’s recommendation to adopt this escalation in gas transportation rates, and admonishes SEIA to pursue this issue before the CEC.¹⁷ But, we already have done so, and now the CEC has approved a new IEPR gas forecast that better incorporates the reality of rapidly-rising gas transportation rates in California.¹⁸ Thus, while SEIA supports the use of the CEC IEPR forecast as the long-term gas forecast to be used in the ACC, but the Commission should direct that the most recently approved 2021 IEPR gas forecast from September 2021 be employed.

The second issue with the PD is the forecast of gas commodity costs to be used in the first several years of the forecast. As noted earlier in these comments, in the near future, the prices in the first five years of the ACC may be used directly to compensate new solar and storage customers for the excess power that such customers export to the grid. As a result, the avoided cost prices in the initial years of the ACC must be as accurate as possible, and must reflect current market conditions on the CAISO system. The “blended” gas forecast method that has been used in the ACC for many years accomplishes this by using natural gas forward market prices and basis differentials for the first three years of the forecast, before transitioning over the next four years to a long-term “fundamentals” forecast such as the CEC’s long-term IEPR forecast. However, the PD would revise the ACC’s gas forecast to use the CEC IEPR forecast in all years, for both commodity and transportation rates.

¹⁶ See Exh. SEI-01 (Beach), p. 46-47 and Figure 14.

¹⁷ Proposed Decision, pp. 77-78.

¹⁸ There continue to be significant other issues with the accuracy and structure of the gas transportation rates used in the CEC IEPR gas forecasts that also result in a too-low forecast. SEIA is willing to pursue these issues at the CEC in the future.

When the record in this case was developed, natural gas commodity prices already were increasing sharply, due to the re-opening economy and the supply shocks from extreme weather events in 2021 – the prolonged Texas cold snap in February 2021, the continuing drought in the western U.S., and Hurricane Ida last summer. The record shows that gas prices for calendar year 2021 in the U.S. benchmark Henry Hub gas market were expected to approach \$4 per MMBtu.¹⁹ This is far above the base case CEC IEPR gas forecast released in September 2021, which projects Henry Hub prices in 2022-2024 in the neighborhood of \$2.50 per MMBtu.²⁰ As the Commission is undoubtedly aware, the trend of ever-higher natural gas prices has only accelerated in recent months, due to the spike in fossil fuel prices worldwide resulting from Russia’s invasion of Ukraine. SEIA asks the Commission to take official notice that natural gas commodity market prices in the U.S. are now above \$6 per MMBtu, up from the \$2 to \$3 per MMBtu range in 2020, and the forward markets expect them to remain high in 2023, with the U.S. undertaking to supply liquified natural gas to replace a portion of the European Union’s gas supply from Russia.²¹

The PD attempts to justify the move away from the blended forecast to the use of the CEC IEPR forecast in all years, by arguing that “it is difficult to state with any certainty that using a forecast based on recent market prices is any more accurate than the IEPR forecast.”²² In today’s circumstances, this is simply not true – given recent events in worldwide energy markets, we can say with certainty that a forecast based on forward

¹⁹ See Exh. SEI-01 (Beach), p. 46-47 and Figure 14.

²⁰ *Id.*, at p. 47 and especially Figure 14.

²¹ See CA Evidence Code Section 452(h). Judicial Notice may be taken of “facts and propositions that are not reasonably subject to dispute and are capable of immediate and accurate determination by resort to sources of reasonably indisputable accuracy.”

²² Proposed Decision, p. 77.

market prices for the next several years will be more accurate than the outdated gas commodity cost forecasts from the CEC IEPR. In today's reality of surging worldwide fossil fuel prices, the value of clean, renewable DER resources that displace natural gas use is increasing. DERs evaluated using the 2022 ACC will be significantly undervalued in the initial years unless the natural gas forecast used in the 2022 ACC reflects these realities. The ACC should retain the use of the current "blended" natural gas forecast for natural gas commodity prices.

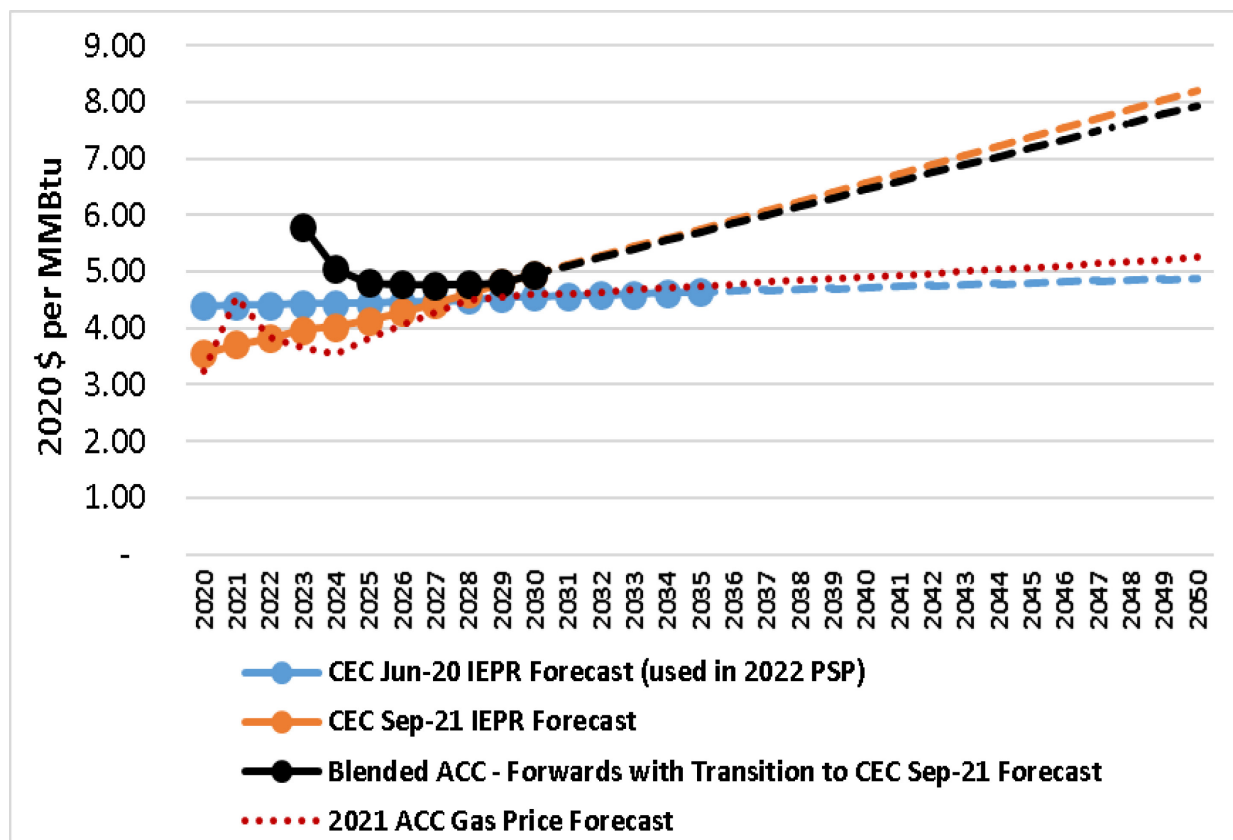
, **Figure 1** below shows all of the forecasts discussed above in graphic form.²³

- The 2020 IEPR forecast is the flat **blue** line.
- The September 2021 IEPR update is the **orange** line.
- The **black** line is the ACC-specific forecast using the current methodology, and assuming a transition in years 4-7 to the use of the most recent IEPR gas forecast (the September 2021 forecast). This is the forecast that SEIA recommends for the 2022 ACC.

The PD would use the blue line as the gas forecast in the ACC. The result would be avoided energy prices very similar to those in the 2021 ACC, even though there has been a dramatic increase in natural gas prices over the last year, and even though the CEC has now approved an IEPR gas forecast with transportation rates that escalate at well above inflation. The **dotted red** line shows the too-low gas price forecast used in the 2021 ACC and the 2022 Preferred System Plan. SEIA strongly recommends that the Commission retain the use of the current "blended" forecast of gas commodity costs, and use the most-recently-approved 2021 CEC IEPR gas forecast from September 2021 as the forecast of transportation costs and long-term gas commodity costs. This is the black line in Figure 1.

²³ The forecasts in Figure 2 are expressed in constant 2020 dollars, as used in the IRP and ACC modeling.

Figure 1: Comparison of Natural Gas Forecasts



Finally, SEIA notes that the PD justifies the use of the same IEPR gas forecast used in the IRP “to be consistent with IRP modeling but, more importantly, to ensure that distributed energy resources are treated evenly with supply side resources.”²⁴ This rationale does not hold up under scrutiny. The IRP does not choose between supply- and demand-side resources; it only selects a portfolio of supply-side resources. Moreover, today the gas forecast has little or nothing to do with the choice of supply-side resources in the IRP, because California is no longer building new gas-fired resources. In the most recent order in the IRP docket, the Commission approved the PSP that includes no new gas capacity and deferred the issue of allowing upgrades to existing

²⁴ Proposed Decision, p. 77.

gas units – the one remaining avenue for additional gas capacity,²⁵ The primary purpose of the modeling in the IRP today is to select a portfolio of renewable resources and storage to meet the state’s reliability and carbon reduction goals. The costs of these resources are not affected by natural gas costs, nor do gas prices impact the outcome of the competition between these resources that is modeled in the IRP. One can change the IRP gas forecast without changing the portfolio of renewable resources and storage that is selected in the IRP, and the IRP modeling no longer even considers natural gas prices as a sensitivity to analyze. The Staff Proposal in this case recognizes that the natural gas forecast no longer has a significant impact on supply-side procurement; the gas forecast section of the Staff Proposal states “[i]n the current policy environment focused on clean energy, market based natural gas prices no longer have the significant impact on market prices and procurement that they once did.”²⁶ In the IRP docket, SERVM modeling is used only to check the GHG emissions and analyze the reliability of the chosen supply-side portfolio;²⁷ forecasted market prices are not used to compensate supply-side resources (which LSEs procure through competitive solicitations that set long-term contract prices). In contrast, as noted above, the hourly forecasted prices modeled in the ACC are likely to be used directly in procurement – to set the avoided energy costs actually paid to demand-side solar generators. As a result, the hourly avoided energy costs in the ACC need to be determined using the most accurate possible forecast of the burnertip cost of natural gas, which remains the marginal fuel in California in many hours. The changes to the PD recommended above must be made to ensure that the gas forecast used in the ACC is as accurate as possible.

²⁵ See D. 22-02-004, at pp. 132-134.

²⁶ Integrated Distributed Energy Resources (IDER) 2022 Update Avoided Cost Calculator (ACC) Staff Proposal (November 30, 2021) (“Staff Proposal”), p. 22.

²⁷ See D. 22-02-004, at pp. 92-93.

C. GHG Rebalancing

The Proposed Decision simultaneously determines to make no changes to the GHG rebalancing method,²⁸ while also acknowledging that the current methodology is not accurate.²⁹ Indeed, the record of this proceeding establishes that the currently methodology has not been adequately justified. The Proposed Decision must be modified to remedy this error.

As stated by Commission Staff and reflected in the Proposed Decision, “GHG rebalancing is a step to accurately reflect the energy sector emissions cost of *adding* or *reducing* load under a required annual intensity target.”³⁰ Given the fact that the purpose is to reflect changes resulting from adding or reducing load, it makes no sense, and indeed no reason has been provided, to make such an adjustment for distributed energy resources such as solar and storage. Distributed solar and storage are DERs that have no impact on end-use electric loads, and only result in *substituting* distributed generation and storage resources for similar utility-scale resources at different locations on the grid. In such circumstance there is no change in the GHG intensity of the overall electric sector. SEIA raised this point in testimony³¹ and on brief.³² The PD briefly acknowledges SEIA’s arguments,³³ but provides only the scant response that the arguments are “not persuasive.”³⁴ No explanation is provided for this statement.

²⁸ Proposed Decision, p. 87.

²⁹ *Id.*, p. 90.

³⁰ See Proposed Decision, pp. 87-88 citing Staff Proposal, p. 31 (emphasis added)

³¹ See Exh. SEI-01 (Beach), p. 54-55

³² *Opening Brief and Opening Comments of the Solar Energy Industries Association on 2022 Changes to the Avoided Cost Calculator*, R. 14-10-003 (December 22, 2021) (“SEIA Brief”), pp. 52-53.

³³ Proposed Decision, p. 88.

³⁴ *Id.*, p. 90.

Irrespective of SEIA's arguments, the Commission must have an adequate record upon which to base the application of the GHG Rebalancing method to DERs such as solar and storage which neither add nor reduce load. It does not. The record justification for the GHG rebalancing adjustment is grounded in one type of DER – DERs that result in fuel substitutions which increase electric loads: for example, electric vehicles that replace liquid fossil fuels with electricity. In the documentation for the 2020 and 2021 ACCs, and in the Staff's Proposal in this proceeding, DERs that result in fuel substitution and increased electric loads are the *only* examples given to demonstrate a need for GHG rebalancing.³⁵ As SEIA has shown, application of the GHG rebalancing adjustment to solar and storage results in a substantial decrease in the avoided GHG costs of these DERs.³⁶ Absent record demonstration that the substitution of solar and storage for other resources results in a change in the GHG intensity of the overall electric sector, there is no justification to devalue the avoided GHG costs of these DERs.

While SEIA supports the PD's conclusion that additional research is needed to determine how to properly value the long-run avoided costs for greenhouse gas emissions,³⁷ it does not support the offhanded conclusion that "making changes in this decision without further investigation could lead to less accuracy."³⁸ The record of this proceeding shows that the GHG rebalancing adjustment should not be applied to DERs that do not modify load. SEIA respectfully requests that the Commission find that this adjustment should not be applied in calculating the avoided costs of solar and storage resources.

³⁵ SEIA Brief, p. 53.

³⁶ See Exh. SEI-01 (Beach), p. 54, Table 5.

³⁷ Proposed Decision, p. 87.

³⁸ *Id.*, p. 90.

III. THE PROPOSED DECISION MUST BE CLARIFIED TO REFLECT THE COMMISSION'S APPARENT INTENT

A. Resolution Process

The Proposed Decision determine that the resolution process is “an efficient and effective process for adopting the final Avoided Cost Calculator, following adoption of the policy and modeling changes in [a Commission] decision.”³⁹ The Proposed Decision agrees with SEIA and other parties that additional steps are needed to ensure an appropriate level of due process.⁴⁰ SEIA appreciates this acknowledgement and supports the additional steps the Proposed Decision would add to the resolution process. That said, SEIA seeks a modification to the Proposed Decision to ensure that these additional steps are initiated in a timely fashion.

Specifically, while the text of the Proposed Decision (at p. 38) implies that these steps will be initiated with the resolution process to commence after a final decision in this proceeding,⁴¹ the Ordering Paragraphs indicate that these new procedural steps will not commence until the next update of the ACC.⁴² In order to ensure that there is no misunderstanding with respect to the tasks that Energy Division has been instructed to undertake in the resolution process following the issuance of this decision, the Ordering Paragraph should be modified to conform with the text of the PD.

B. Secondary Distribution Costs

³⁹ *Id.*, p. 38.

⁴⁰ *Id.*, pp. 38-39.

⁴¹ See Proposed Decision p. 38 (Approximately four weeks following the adoption of decisions updating the Avoided Cost Calculator (*beginning with this decision*), Energy Division will provide the draft revised Avoided Cost Calculator results and notice of a workshop to discuss the draft calculator and the data sets listed in Table 2 above. Additionally, Energy Division will establish a deadline for receiving data requests and will allow for informal stakeholder comments following the workshop but prior to the issuance of the draft resolution adopting a revised Avoided Cost Calculator. The draft resolution will provide an overview of the workshop and stakeholder comments.).

⁴² Proposed Decision, pp. 114-115, Order Paragraph 2 (“The following policies *for future updates of the Avoided Cost Calculator* are adopted.”).

The Proposed Decision determines that, on an interim basis, secondary distribution costs should continue to be included in the ACC.⁴³ In doing so the PD is consistent with the Staff Proposal.⁴⁴ SEIA supports this result but seeks clarification regarding the allocation of such costs across the hours of the year. SEIA recognizes that the Proposed Decision rejected its proposal to allocate secondary distribution costs on an equal cents per kwh basis, but the PD did not make clear whether, consistent with its adoption of the Staff Proposal to continue to include secondary distribution costs on an interim basis, it was also adopting the Staff Proposal to “apply the allocation approach of peak diversified load, currently used for allocating primary distribution costs.”⁴⁵ Such clarification must be made in the PD. Absent such clarification, the PD fails to provide a means to allocate secondary distribution costs. SEIA would support an allocation on the basis of peak diversified load as the outcome for this issue.

IV. CONCLUSION

The Commission should modify the Proposed Decision in the areas discussed above. Given the expanding uses for the ACC – including its probable use as a source of hourly pricing used to compensate certain types of DER customers – the hourly avoided costs that the ACC produces must be calculated as accurately as possible. Further, the Commission should clarify that the GHG rebalancing adjustment in the ACC only applies to DERs that modify electric end-use loads by substituting electricity for other fossil fuels in primary energy uses. SEIA has attached to these comments revised findings of fact, conclusions of law and ordering paragraphs to accomplish these necessary changes.

⁴³ Proposed Decision, p.60.

⁴⁴ Staff Proposal, p. 14.

⁴⁵ Proposed Decision, p. 61.

Respectfully submitted, this 19th day of April 2022 at San Francisco, California.

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By /s/ Jeanne B. Armstrong
Jeanne B. Armstrong

RECOMMENDED CHANGES TO FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDERING PARAGRAPHS

Findings of Fact

81. The testimony of CLECA and CUE, ~~and SEIA~~ regarding distribution capacity costs is unsubstantiated and arbitrary.

84. It is reasonable to adopt the value of \$54.93 per kW-year proposed as the avoided cost of transmission for SCE ~~is not an uncontested value.~~

85. ~~It is reasonable to use the same analysis as done in the 2020 Avoided Cost Calculator to develop an avoided cost of transmission for SCE.~~

89. ~~It is difficult to state with any certainty that using a forecast based on recent market prices is any more accurate than using the IEPR forecast.~~ A forecast based on forward market prices for the next several years will be more accurate than the outdated gas commodity cost forecast from the 2020 CEC IEPR.

90. In D.20-04-020 the Commission stated that natural gas transportation rate forecasts should be determined by the CEC in its IEPR proceeding.

New Finding of Fact

The September 2021 IEPR gas forecast is more accurate than the IEPR forecast used in recent IRP modeling.

103. Rebalancing is needed to accurately assess the greenhouse gas emissions contributions or reductions of certain distributed energy resources.

104. The current rebalancing method ~~may not be~~ is not as accurate as it could be, and immediate changes are needed. ~~but making changes without further investigation could lead to less accuracy.~~

New Finding of Fact

A GHG rebalancing adjustment should not be applied to DERs, such as solar and storage, that do not modify end-use loads.

105. There is no perfect way to determine what portion of future distributed energy resources will have a marginal versus non-marginal effect.

106. There are broader policy questions that need to be answered ~~before revising~~ regarding the rebalancing method.

Conclusions of Law

8. The Commission should instruct Energy Division to provide the data sets outlined in Table 2 of this decision to parties after the issuance of the decision adopting the IRP modeling, starting with Decision 22-02-004 Adopting the Preferred System Plan for 2021.
24. The Commission should not adopt the proposal to use the allocation approach of an equal cents per kilowatt-hour for allocating secondary distribution costs, but should continue to apply the allocation approach of peak diversified load, currently used for allocating primary distribution costs
29. The Commission should ~~perform the same analysis as was done in the 2020 Avoided Cost Calculator update to calculate~~ adopt the value of \$54.93 per kW-year proposed as the avoided cost of transmission for SCE.
31. The Commission should ~~not~~ adopt the natural gas forecast proposals recommended by SEIA.
32. ~~The Commission should use the IEPR natural gas forecast to be consistent with IRP modeling and to ensure distributed energy resources are treated evenly with supply-side resources.~~ The Commission will continue to use the “blended” gas forecast method by using natural gas forward market prices and basis differentials for the first three years of the forecast, before transitioning over the next four years to long-term “fundamentals” forecast such as the adopted CEC 2021 IEPR forecast.
33. Natural gas transportation rates ~~should be~~ have been resolved in the CEC’s 2021 IEPR proceeding and we will use the natural gas transportation rates adopted by the CEC in September 2021 IEPR gas forecast.
37. The Commission should not adopt the proposal to benchmark SERVIM to actual CAISO market prices, at this time.
41. The Commission should ~~retain~~ modify the current greenhouse gas rebalancing method for the 2022 Avoided Cost Calculator update to ensure that the adjustment is not applied to DERs that do not modify end-use load such as solar and storage.

Ordering Paragraphs

2. The following policies for future updates of the Avoided Cost Calculator are adopted:
- (a) Energy Division will issue a final Staff Proposal on proposed changes to the Avoided Cost Calculator at the commencement of the update.

- (b) Energy Division will host a workshop to discuss the Staff Proposal after issuance of the proposal.
- (c) Energy Division will address questions and data requests from parties on the Staff Proposal.
- (d) The Avoided Cost Calculator will use the most recently adopted capacity expansion plan adopted in the Integrated Resource Planning proceeding.

New Ordering Paragraphs:

The following policies for the resolution process of each ACC update, commencing with the resolution process immediately following issuance of this decision are adopted:

- ~~(e)~~ (a) Energy Division will release the results of the "No New DER" Scenario and the following data sets after adoption of a capacity expansion plan in the Integrated Resource Planning (IRP) proceeding: i) IRP resource build by scenario, gas forecast, fossil plant heat rates, and renewable profiles; ii) key changes to the SERVVM model since last update; iii) SERVVM dispatch raw results for a typical week in each season for a subset of years; iv) postprocessed scarcity adjusted price results; v) month-hour average heatmap of raw energy and ancillary service prices and an historical prices comparison; and vi) price duration curves for prices and an historical prices comparison.
- ~~(f)~~ (b) Energy Division will provide a draft of the updated Avoided Cost Calculator, after adoption of the decision adopting policies and modeling changes but not later than six weeks prior to the issuance of the draft resolution adopting the updated Avoided Cost Calculator
- ~~(g)~~ (c) Energy Division will host a workshop on the draft updated Avoided Cost Calculator and the data sets provided in 2(e) above.
- ~~(h)~~ (d) Energy Division will establish a schedule for data requests and the submission of informal comments on the draft calculator and the data sets.
- ~~(i)~~ (e) Energy Division will include a discussion of the workshop and the informal comments in the draft resolution adopting the updated Avoided Cost Calculator.

3. Beginning with the 2022 Avoided Cost Calculator, the following revisions to the calculator are adopted:

.....

- (h) The value of \$52.45 per kilowatt-year is adopted as the avoided transmission cost for Pacific Gas and Electric Company. ~~The Avoided Cost Calculator shall use the same method as was conducted in the 2020 Avoided Cost Calculator to obtain~~ The value of

\$54.93 per kilowatt year is adopted as the avoided transmission cost for Southern California Edison Company.

- (i) The September 2021 natural gas forecast from the California Energy Commission's adopted 2021 Integrated Energy Policy Report shall be used as the long term forecast in the 2022 Avoided Cost Calculator.
- (k) The greenhouse gas rebalancing method ~~remains unchanged~~ shall not be applied to solar and storage distributed energy resources.